

Agenda Item: 11B

Meeting Date: August 11, 2005

**CONSIDERATION OF A RESOLUTION RECOMMENDING THAT  
THE DEPARTMENT OF FISH AND GAME PROCEED WITH AWARDING  
THE CALFED ECOSYSTEM RESTORATION PROGRAM  
MONITORING AND EVALUATION GRANTS**

---

**Summary:** This resolution recommends to the Department of Fish and Game that it immediately proceed with awarding four Ecosystem Restoration Program monitoring and evaluation grants to support the projects summarized in Attachment 1 and described in Attachment 2. The four grants total \$5,207,845.

This resolution also recommends that the Department of Fish and Game proceed with awarding six additional monitoring and evaluation grants subject to resolving shortcomings identified during the Proposal Solicitation Package review process. These grants will fund the projects summarized in Attachment 1 and described in Attachment 3, for a total of \$8,980,074.

Finally, this resolution also recommends that the Department of Fish and Game award four additional Directed Action grants summarized in Attachment 1 and described in Attachment 4, for a total of \$4,056,059.

**Recommended Action:** The Authority adopt the attached Resolution 05-08-04.

---

**Background**

In September 2004, the CALFED Ecosystem Restoration Program (ERP) released a Monitoring and Evaluation Proposal Solicitation Package (PSP). It requested proposals to monitor previously funded ecosystem restoration projects in order to evaluate their outcomes and support adaptive management of those projects. The deadline for submittal was November 19, 2004. A total of 41 proposals requesting \$46.3 million were considered through the solicitation.

**ERP Selection Panel Recommendations**

The ERP Selection Panel met in April 2005 to consider highly-rated proposals received and reviewed in response to the September 2004 Monitoring and Evaluation proposal solicitation package. The Initial Recommendation from the Selection Panel was made available in April 2005 for public comment for a 30-day period. The Selection Panel reconvened in May 2005 to consider these comments, and has prepared a set of Final Recommendations (Attachment 5).

The Selection Panel's recommendations fall into four categories:

**Fund.** Proposals may be recommended for funding, in whole or in part. Conditions of approval may be included in recommendations for funding of some proposals to address issues raised during the review process.

**Reconsider if Revised.** These are proposals that are high priorities and should be considered for funding if they are revised to address shortcomings identified in the review process. Revised proposals that are resubmitted for reconsideration will undergo additional review to ensure the shortcomings that the Selection Panel identified have been resolved satisfactorily.

**Directed Action (Baseline Fish and Water Monitoring).** Several proposals sought funds for baseline monitoring of salmon populations' status and trends or of water flows in ERP's Sacramento Region. The Selection Panel and the PSP's Technical Panel concluded that this monitoring was not well suited to evaluating the outcome of ecosystem restoration actions, which was the focus of the PSP. The Selection Panel nevertheless recognizes that this monitoring is of great utility in assessing status and trends of some priority salmon species' populations in the upper Sacramento River basin and of waters on which they depend. The Selection Panel recognizes the value of these data for status and trends analyses, management activities such as setting take limits, and for ongoing modeling efforts, and encourages funding of these activities through a directed actions process.

**Do Not Fund.** These proposals have serious technical deficiencies or are of lower priority to the ERP at this time. This category also includes proposals that were rated both inadequate by the Technical Panel and medium or lower by the applicable Regional Panel. The Selection Panel did not review these proposals because they were not highly rated.

### **Department of Fish and Game Proposed Funding Decision**

The Department of Fish and Game (DFG) makes the final decision on the selection of grants to receive funding from this solicitation. Therefore, the Selection Panel's Final Recommendations were submitted to the DFG Director for consideration. DFG proposed decision is summarized in Attachment 2 (projects selected for funding), Attachment 3 (projects identified to reconsider by DFG if revised), and Attachment 4 (Directed Actions that address baseline fish and water monitoring).

There is only one difference between the Selection Panel Final Recommendations and the proposed decision by DFG. The project recommended for funding by the Selection Panel submitted by the U.S. Geological Survey on the "*Evaluation of the conservation value of lands purchased with CALFED funds for wintering Sandhill Cranes*" was not chosen for funding by DFG at this time. As described in the ERP Multi-Year Program

Plan, DFG and the Federal ERP implementing agencies are focusing Year 6 funding on projects and activities that will address the needs of Delta dependent fish species. It should be noted there is ongoing monitoring of Sandhill Cranes in association with the Staten Island project.

### **Authority ERP Recommendation**

The Authority ERP staff concur with the DFG proposed decision described in Attachments 2–4, and recommend that the Authority adopt the attached resolution.

The Authority ERP staff expect that the review of the reconsider–if–revised proposals will be a collaborative effort coordinated with the DFG and the federal ERP implementing agencies. Proposals that have been successfully revised will advance to the Director of the Department of Fish and Game for a final funding decision.

All three categories of projects included in Attachments 2-4 are also listed as actions in the ERP Multi-Year Program Plan Year 6 activities.

### **Fiscal Information**

- **Four Monitoring and Evaluation Projects Recommended for Immediate Funding**  
**Funding Source:** Proposition 50 CALFED Ecosystem Restoration Program Grant Funds  
**Term:** September 1, 2005 to June 30, 2008  
**Total Amount:** up to \$5,207,845
- **Six Additional Monitoring and Evaluation Projects for Reconsideration if Revised**  
**Funding Source:** Proposition 50 CALFED Ecosystem Restoration Program Grant Funds  
**Term:** Three years from awarding grant  
**Total Amount:** up to \$8,980,074
- **Four Directed Action Projects (Baseline Fish and Water Monitoring)**  
**Funding Source:** Proposition 50 CALFED Ecosystem Restoration Program Grant Funds  
**Term:** Three years from awarding grant  
**Total Amount:** up to \$4,056,059

**List of Attachments**

- Attachment 1 – Summary of Funding Recommendations
- Attachment 2 –Department of Fish and Game Ecosystem Restoration Monitoring  
Project Descriptions, Selected Projects
- Attachment 3 –Department of Fish and Game Ecosystem Restoration Monitoring  
Project Descriptions, Reconsider if Proposals are Revised
- Attachment 4 –Department of Fish and Game Ecosystem Restoration Monitoring  
Project Descriptions, Directed Actions (Baseline Fish and Water  
Monitoring)
- Attachment 5 – Ecosystem Restoration Program Selection Panel Final  
Recommendations

Resolution 05-08-04

**Contact**

Tim Ramirez  
Senior Advisor and  
Deputy Director for Ecosystem Restoration

Phone: (916) 445 5511

## CALFED Ecosystem Restoration Program Monitoring and Evaluation Grants Summary of Funding Recommendations

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California State Coastal Conservancy	Monitoring for Invasive Spartina Control in the San Francisco Estuary	\$1,651,396	Fund Amount: \$1,234,396	Fund Amount: \$1,234,396
Marin Audubon Society	Petaluma Marsh Expansion Project -- Monitoring and Secondary Test Site for the Integrated Regional Wetland Monitoring Project	\$235,000	Fund Amount: \$235,000	Fund Amount: \$235,000
Turlock Irrigation District	Tuolumne River Restoration Monitoring	\$2,430,400	Fund Amount: \$2,430,400	Fund Amount: \$2,430,000
Western Shasta Resource Conservation District	Lower Clear Creek Monitoring Program	\$1,308,449	Fund Amount: \$1,308,449	Fund Amount: \$1,308,449
US Geological Survey	Evaluation of the conservation value of lands purchased with CALFED funds for wintering Sandhill Cranes	\$490,909	Fund Amount: \$490,909	Do Not Fund
<b>Total</b>		<b>\$6,116,154</b>		<b>\$5,207,845</b>

  

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California Dept. of Fish & Game	Juvenile Anadromous Salmonid Emmigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel	\$90,072	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$90,072
California Dept. of Water Resources	Real-Time Flow Monitoring	\$330,000	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$330,000
Pacific State Marine Fisheries Commission	Upper Sacramento River Basin Chinook Salmon Escapement Monitoring Program	\$1,353,357	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$1,353,357
US Fish & Wildlife Service	Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement	\$2,282,630	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$2,282,630
<b>Total</b>		<b>\$4,056,059</b>		<b>\$4,056,059</b>

  

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California State University Chico	Butte Creek Spring-run Chinook Salmon Life History Investigation	\$513,281	Reconsider if Revised Amount: \$513,281	Reconsider if Revised Amount: \$513,281
California State University Chico	Sacramento River Riparian Monitoring and Assessment Consolidated Project	\$3,222,967	Reconsider if Revised	Reconsider as one combined project, Amount: \$2,000,000
River Partners	VELB Colonization of Planted Riparian Restoration Projects along the Middle Sacramento River	\$638,851	Reconsider if Revised	
The Nature Conservancy	Measuring the Performance of Riparian Restoration Projects on the Sacramento River	\$1,103,944	Reconsider if Revised	
Sonoma Ecology Center	Arundo donax Eradication and Coordination Program: Monitoring and Evaluation	\$396,352	Reconsider if Revised Amount: \$111,000	Reconsider if Revised Amount: \$111,000
University of California, Davis	Monitoring Responses of the Delta Smelt Population to Multiple Restoration Actions in the San Francisco Estuary	\$2,658,648	Reconsider if Revised Amount: \$1,482,480	Reconsider if Revised Amount: \$1,482,480
US Fish & Wildlife Service	Clear Creek Anadromous Salmonid Monitoring Program	\$3,373,313	Reconsider if Revised Amount: \$3,373,313	Reconsider if Revised Amount: \$3,373,313
California Dept. of Water Resources	The COYOTE Project: a Unified Approach to Monitoring Floodplain and Freshwater Tidal Marsh Restoration in the Cosumnes Preserve and Yolo Bypass	\$5,107,577	Reconsider if Revised Amount: \$1,500,000	Reconsider if Revised Amount: \$1,500,000
<b>Total</b>		<b>\$17,014,933</b>		<b>\$8,980,074</b>

## Item 11b, Attachment 1 - Summary of Funding Recommendations

Page 2

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California Dept. of Fish & Game	Merced River Restoration Project Monitoring, Crocker-Huffman Dam to Gallo Ranch	\$2,051,106	Do Not Fund	
California State Coastal Conservancy	Near-field and Far-field Effects of Tidal Wetland Restoration in the Lower Napa River	\$2,731,376	Do Not Fund	
California State University Hayward	Multidisciplinary Monitoring of Environmental Processes in CALFED Restored Marshes in the Suisun Bay Ecological Zone. Phase Two: Importance of Marsh Tidal Pools, Algae, and Other Features along Marsh Channels	\$1,023,911	Do Not Fund	
California State University Sacramento	Effects of Structural Enhancement on Salmonid Spawning	\$188,776	Do Not Fund	
Fishery Foundation of California	Cosumnes River Passage Improvement Monitoring Program	\$251,647	Do Not Fund	
Fishery Foundation of California	Monitoring Study of Western Delta Aquatic Habitat Restoration Sites including Twitchell Island Restoration Site – K250/1997	\$411,820	Do Not Fund	
Friends of the Tuolumne, Inc.	Tuolumne River Post Construction Habitat Evaluation	\$353,790	Do Not Fund	
Lassen National Forest	Monitoring Effectiveness of Watershed Improvement Measures in Deer, Mill, Antelope and Battle Creeks	\$259,152	Do Not Fund	
National Audubon Society	Monitoring Ecosystem Response and Restoration Implementation in Western Sacramento Valley Watersheds	\$1,200,000	Do Not Fund	
Plumas Corp.	Upper Last Chance Restoration Project Monitoring	\$473,804	Do Not Fund	
River Partners	Sub-surface water quality monitoring on restored riparian sites along the middle Sacramento River	\$409,350	Do Not Fund	
River Partners	Vegetation and Wildlife Response to Native Grass Restoration on the Llano Seco Unit, Sacramento River National Wildlife Refuge	\$372,100	Do Not Fund	
River Partners	Assessment of Vegetative and Wildlife Responses to Innovative Restoration Design on the Beehive Bend Unit	\$364,156	Do Not Fund	
San Francisco Estuary Institute	Implementation of A Wetlands Monitoring System Suitable for Assessing Ecosystem Response to Restoration Actions	\$1,774,680	Do Not Fund	
San Joaquin County Resource Conservation District	Murphy Creek Restoration monitoring Project	\$583,054	Do Not Fund	
Sonoma Ecology Center	Does It Work? Measuring the Success of Salmonid Habitat Restoration at Multiple Scales	\$810,324	Do Not Fund	
Stockton East Water District	Calaveras River: Mellota Fish Ladder Passage Evaluation	\$144,051	Do Not Fund	
The Nature Conservancy	Cosumnes River Preserve restoration monitoring data integration for adaptive management	\$885,420	Do Not Fund	
Tri-Dam Project	Stanislaus River Chinook Salmon and Steelhead Escapement Evaluation	\$551,914	Do Not Fund	
Tri-Dam Project	Assessment of Project Specific and Cumulative Effects of Restoration on Stanislaus River Juvenile Chinook Production	\$478,509	Do Not Fund	

Item 11b, Attachment 1 - Summary of Funding Recommendations

Page 3

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
US Geological Survey	Comparison of hyporheic water quality and methylmercury exposure in salmonid redds within restored and unrestored gravels in the lower American River	\$996,307	Do Not Fund	
University of California, Davis	Monitoring Sacramento perch populations in the Central Valley	\$715,362	Do Not Fund	
University of California, Davis	Hypothesis-driven Monitoring of the CALFED/CVPIA Sponsored Gravel Augmentation on the Lower Mokelumne River	\$705,052	Do Not Fund	
<b>Total</b>		<b>\$17,735,661</b>		

## Department of Fish and Game Ecosystem Restoration Monitoring Project Descriptions, Selected Projects

**Proposal Number:** 0090

**Applicant Organization:** California State Coastal Conservancy

**Proposal Title:** *Monitoring for Invasive Spartina Control in the San Francisco Estuary*

**Recommended funding:** \$1,234,396

**Description:** This project will assess the effectiveness of an interagency effort to control Atlantic cordgrass, a highly invasive weed whose spread would impede tidal marsh restoration and damage habitat for scarce wildlife in San Francisco Bay and Suisun Marsh. Control efforts are underway at many sites throughout the Bay this year, following several years of research and pilot projects to perfect control techniques. Funds for the control are provided by the CALFED ERP, the State Coastal Conservancy, and local Bay area organizations, such as park agencies and nature areas whose property is infested by the weed. The project will monitor areas treated to control Atlantic cordgrass to determine if treatment was effective and if follow up controls are needed. Annual surveys will assess whether nonnative cordgrass is spreading beyond treated areas into previously uninfested portions of the San Francisco Estuary. Duration: 36 months

This project is important because Atlantic cordgrass may physically change the mudflats and marshes of San Francisco Bay and Suisun Bay, degrading their value for wildlife and altering their ecological functions. Control techniques developed so far hold the promise for preventing the weed's spread. Careful monitoring can verify their effectiveness and facilitate follow up treatments, if needed. The combination of monitoring and control can minimize this weeds spread through San Francisco and Suisun Bays, where it could interfere with marsh restoration, an important ERP objective.

Funds to support new treatment efforts or research on cordgrass hybrids are not provided, however, because they are not responsive to the PSP's emphasis on evaluating completed restoration efforts.

**Conditions:** 1. Surveys for rails prior to new cordgrass treatments and the genetic marking work is not needed to evaluate completed control activities and so is not funded as part of this grant. Eliminate the rail surveys for a savings of \$48,000 and the QTL development task and continue to use the RAPD method for an additional cost savings of \$139,000 per year for 3 years - total \$465,000. 2. A detailed explanation of the proposed administrative overhead rates and an evaluation of the proposed administrative fees for the primary and subcontractor agreements are required. The panel recommends that State reserves the right to negotiate a reasonable administrative overhead rate and additional fee rates other than stated in the grant proposal. 3. The proposed grantee shall provide a description of qualifications and a short justification for contracting services for pre-selected subcontractors. The proposed grantee shall submit a detailed budget identifying labor rates and indirect costs of the proposed subcontractors.

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of



these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0135

**Applicant Organization:** Marin Audubon Society

**Proposal Title:** *Petaluma Marsh Expansion Project – monitoring and secondary test site for the integrated regional wetland monitoring project.*

**Recommended funding:** \$235,000

**Description:** This project will monitor and evaluate whether an important tidal marsh restoration, the Petaluma Marsh Expansion Project, is achieving its intended ecosystem benefits. The Petaluma River is among key sites in San Francisco Bay where the ERP is funding marsh restoration to benefit scarce Bay-Delta wildlife and provide habitat for estuarine fish. The expansion project restores 110 acres adjacent to the marsh's most important wetlands. Restoration of this site is almost completed. The monitoring to be funded here will assess whether the ecosystem benefits forecast for the project are being attained and inform the site's management. Because it uses methods developed with prior CALFED science program support and can draw upon CALTRANS' marsh monitoring funds, the project is especially cost effective. Duration: 12 months

**Conditions:** Final approval of funding for this project should be conditioned on the applicants successfully providing detailed budget information addressing deficiencies identified in the budget review.

The funding agency should coordinate the budget for this effort with CalTrans to assure that the \$50,000 requested in this proposal is closely coordinated with the CalTrans funded monitoring of the area, to maximize the value of State funds invested in monitoring this site.

If the Science Program approves funding for a related proposal titled "Integrated Regional Wetland Monitoring (IRWM) Project", then the final budget for the Petaluma Marsh expansion monitoring project should be reconciled with the budget for the related request before the Science Program, to ensure that funding is complementary and not duplicative. [Note: The Science Program Selection Panel did not recommend funding for the IRWM project. ]

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0097

**Applicant Organization:** Turlock Irrigation District

**Proposal Title:** *Tuolumne River Restoration Monitoring*

**Recommended funding:** \$2,430,000

**Description:** This project will monitor the effectiveness of four projects to restore habitat for salmon and steelhead on the Tuolumne River. These projects implement a comprehensive river restoration plan developed for 25 gravel-bedded miles of the Tuolumne River, and are being constructed at a cost of tens of millions of dollars. With their sheer size and cost, these projects require thoughtful design, experimentation, and adaptive management to maximize their benefits both to the river and to restoration science. The Tuolumne is the San Joaquin River tributary where the ERP is supporting its most intensive effort to restore salmonids' habitats, as called for in the CALFED Multi-Species Conservation strategy. The Tuolumne restoration effort, a partnership of the local irrigation district, fish and wildlife agencies, and local conservation organizations, exemplifies the locally-led, multi-stakeholder effort the ERP seeks to encourage. Monitoring results can help the irrigation district and agencies improve their management of the river, fine tune the design of future restoration projects there, and verify the ERP's contribution to recovering Central Valley salmon and steelhead. Duration: 36 months

**Conditions:** Several concerns were identified in the budget review that must be met prior to a final grant award. The proposed grantee shall provide a description of qualifications and a short justification for subcontracting services for pre-selected subcontractors. The proposed grantee shall also submit a detailed budget identifying the labor rates and indirect costs of the proposed subcontractors. A detailed explanation of the proposed Administrative Overhead/Indirect costs rates and an evaluation of the proposed additional administrative fees for the primary and subcontractor agreements shall also be provided. The Selection Panel recommends that the State reserve the right to negotiate a reasonable administrative overhead rate and additional administrative fee rates other than stated in the grant proposal. In addition, the digital terrain model created for the project area must be available to the public.

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0123

**Applicant Organization:** Western Shasta Resource Conservation District

**Proposal Title:** *Lower Clear Creek Monitoring Program*

**Recommended funding:** \$1,308,449

**Description:** This project will assess whether projects to restore Lower Clear Creek, an important upper Sacramento River tributary, are achieving their intended results. The creek is one of the ERP's "signature areas" where a coordinated set of restoration activities funded by the ERP and Central Valley Project Improvement Act are benefiting the natural production of salmon and steelhead, riparian habitats and wildlife. Birds, geomorphology, riparian and wetland vegetation and the success of exotic species control efforts will be monitored to confirm these projects' effects, improve the creek's management, and verify the ERP's contribution to recovering Central Valley ecosystems. Duration: 36 months

**Conditions:** The grant is subject to a detailed evaluation and approval of the whole budget to determine if labor rates and services are reasonable for services provided and are comparable to state or market rates. For subcontractor portion of the budget, the proposed grantee shall provide a description of qualifications and a short justification for subcontracting services for pre-selected subcontractors (as cited on page 16 of PSP). The proposed grantee shall also submit a detailed budget identifying the labor rates and indirect costs of the proposed subcontractors.

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Department of Fish and Game Ecosystem Restoration Monitoring Project Descriptions,  
Reconsider if Proposals are Revised**

**Proposal Number:** 0105

**Applicant Organization:** California Department of Water Resources

**Proposal Title:** *The COYOTE Project: a Unified Approach to Monitoring Floodplain and Freshwater Tidal Marsh Restoration in the Cosumnes Preserve and Yolo Bypass*

**Recommended funding:** \$1,500,000

**Description:** This project will monitor connectivity and key ecological variables within the Yolo Bypass and the Cosumnes Preserve. The program will take advantage of comparisons between similar ecosystems in the Yolo Bypass and Cosumnes River to assess project performance and the impacts of seasonal and interannual hydrologic variability. Duration: 36 months

**Conditions:** Reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0039

**Applicant Organization:** California State University, Chico

**Proposal Title:** *Butte Creek spring-run Chinook salmon life history investigation*

**Recommended funding:** \$513,281

**Description:** This project, a partnership between California State University, Chico Research Foundation and the California Department of Fish and Game, will continue the Butte Creek spring-run Chinook salmon (SRCS) life history investigation for an additional three years. Duration: 36 months

**Conditions:** Reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0050

**Applicant Organization:** Sonoma Ecology Center

**Proposal Title:** *Arundo donax eradication and coordination program: monitoring and evaluation*

**Recommended funding:** \$111,000

**Description:** This project will monitor sites where the Arundo Eradication and Coordination Program is attempting to eradicate giant reed to determine if their efforts are successful. Duration: 36 months

**Conditions:** Reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0038

**Applicant Organization:** US Fish and Wildlife Service

**Proposal Title:** *Clear Creek anadromous salmonid monitoring program*

**Recommended funding:** \$3,373,313

**Description:** This project is a comprehensive salmonid monitoring program that will evaluate restoration actions and inform adaptive management of Clear Creek. Duration: 36 months

**Conditions:** Reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0133

**Applicant Organization:** University of California, Davis

**Proposal Title:** *Monitoring responses of the Delta Smelt population to multiple restoration actions in the San Francisco estuary*

**Recommended funding:** \$1,482,480

**Description:** This project will monitor delta smelt to discern what environmental conditions, including access to restored habitats, result in high or low survival and population abundance. Duration: 36 months.

**Conditions:** Reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Numbers:** 0106, 0067, 0051

**Applicant Organizations:** California State University, Chico; River Partners; The Nature Conservancy

**Proposal Titles:** *Sacramento River Riparian Monitoring and Assessment Project; VELB Colonization of Planted Riparian Restoration Projects along the Middle Sacramento River; Measuring the Performance of Riparian Restoration Projects on the Sacramento River*

**Recommended funding for combined project:** \$2,000,000 (Duration: 36 months)

**Description:** This effort will:

- measure a range of physical and biological indicators for ERP and AFRP-funded projects within the Sacramento River Ecological Management Zone between Red Bluff and Colusa and compare them to previous conditions and reference systems to test whether restoration actions have improved riparian forest conditions and forest interactions with aquatic processes,
- survey Valley elderberry longhorn beetles on restored riparian habitats at eight selected units of the Sacramento River National Wildlife Refuge, and
- determine the success of riparian restoration projects on the upper Sacramento River.

**Conditions:** Combine three projects and reconsider if revised

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Department of Fish and Game Ecosystem Restoration Monitoring Project  
Descriptions, Directed Actions (Baseline Fish and Water Monitoring)**

**Proposal Number:** 0131

**Applicant Organization:** California Department of Water Resources

**Proposal Title:** *Real-Time Flow Monitoring*

**Recommended funding:** \$330,000

**Description:** This project funds the continued operation and maintenance of flow monitoring stations that are part of an effort to assess, acquire, and manage minimum base instream flows in four eastside Sacramento River tributaries, (Big Chico, Butte, Deer and Mill creeks). Additional efforts to determine appropriate instream flows are currently in progress and will require a long-term record of the daily hydrograph for the various reaches of each tributary. Installation and operation of flow monitoring stations specifically targeted for the management of anadromous fish migration will provide the necessary long-term time series data for determination of minimum base flows. Installation and operation of flow monitoring stations specifically targeted for the management of anadromous fish migration will ensure the presence of, and facilitate the management of, dedicated instream flows acquired for anadromous fish. Duration: 36 months

**Conditions:** Directed Action

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0056

**Applicant Organization:** Pacific States Marine Fisheries Commission

**Proposal Title:** *Upper Sacramento River Basin Chinook Salmon Escapement Monitoring Program*

**Recommended funding:** \$1,353,357

**Description:** The CALFED ERP, the CVPIA Program, and other programs, have provided millions of dollars for the restoration of Chinook salmon habitat in the Upper Sacramento River Basin (USRB), including the mainstem Sacramento River, Clear Creek, Battle Creek, Deer Creek and Mill Creek. The primary objective of this proposal is to continue to monitor the annual abundance, migration timing, and distribution of adult winter, spring, late-fall and fall-run Chinook salmon returning to spawn in the USRB for the next three years. Streams and species/runs to be monitored include:

Sacramento River - winter, fall, and late fall-run Chinook; Clear Creek - fall-run Chinook; Battle Creek - fall-run Chinook; Mill Creek - fall and spring-run Chinook; Deer Creek - fall and spring-run Chinook; Beegum Creek - spring-run Chinook; Antelope Creek - spring-run Chinook. Duration: 36 months

**Conditions:** Directed Action

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0088

**Applicant Organization:** US Fish and Wildlife Service

**Proposal Title:** *Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement*

**Recommended funding:** \$2,282,630

**Description:** Rotary-screw traps at Red Bluff Diversion Dam (RBDD) have provided estimates of abundance and outmigration timing of downstream migrating salmonids since 1994. The primary objective of this project is to obtain juvenile winter Chinook production indices and to correlate these indices with estimated escapement from adult counts at RBDD and the winter-run carcass survey. Duration: 36 months.

**Conditions:** Directed Action

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

**Proposal Number:** 0028

**Applicant Organization:** California Department of Fish and Game

**Proposal Title:** *Juvenile Anadromous Salmonid Emigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

**Recommended funding:** \$90,072

**Description:** This project will continue an existing California Department of Fish and Game (CDFG) juvenile salmonid monitoring project located at the Glenn Colusa



Irrigation District (GCID) diversion on the Sacramento River near Hamilton City. The project has, and continues to provide short-term monitoring specifically related to restoration actions (including Delta operations), and long-term monitoring to detect annular and cyclic population changes. Duration: 36 months.

**Conditions:** Directed Action

CEQA Lead: The Department of Fish and Game (Department) is the lead agency in issuing the monitoring grant funds. The Department has determined that its issuance of these funds qualifies for a "Class 6" categorical exemption (basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource\*) Title 14; Chapter 3; section 15306. The Department, prior to issuing these funds, will submit the necessary "Class 6" categorical exemption to the State Clearing House.

## **ERP Monitoring and Evaluation Proposal Solicitation Package (September 2004) Final Selection Panel Recommendations**

The CALFED Bay-Delta Program Ecosystem Restoration Program (ERP) Selection Panel met in April 2005 to consider highly-rated proposals received and reviewed in response to the September 2004 Monitoring and Evaluation proposal solicitation package. The Initial Recommendation from the Selection Panel was made available in April 2005 for public comment for a 30-day period. The Selection Panel reconvened in May 2005 to consider these comments, and has prepared a set of Final Recommendations, summarized below.

The Department of Fish and Game (DFG) makes the final decision on the selection of grants to receive funding from this solicitation. Therefore, the Selection Panel's Final Recommendations have been submitted to the DFG Director for consideration. The DFG proposed decision will be brought to the California Bay-Delta Authority for their review at their August 11th meeting.

To view a proposal, select the proposal title.

To view the detailed reviews of a proposal, select the recommendation.

### **Explanation of Recommendation Categories:**

The Selection Panel's recommendations fall into four categories.

**Fund.** Proposals may be recommended for funding, in whole or in part. Conditions of approval may be included in recommendations for funding of some proposals to address issues raised during the review process.

**Reconsider if Revised.** These are proposals that are high priorities and should be considered for funding if they are revised to address shortcomings identified in the review process. Revised proposals that are resubmitted for reconsideration will undergo additional review to ensure the shortcomings that the Selection Panel identified have been resolved satisfactorily.

**Directed Action (Baseline Fish and Water Monitoring).** Several proposals sought funds for baseline monitoring of salmon populations' status and trends or of water flows in the ERP's Sacramento Region. The Selection Panel and the PSP's Technical Panel concluded that this monitoring was not well suited to evaluating the outcome of ecosystem restoration actions, which was the focus of the proposal solicitation package. The Selection Panel nevertheless recognizes that this monitoring is of great utility in assessing status and trends of some priority salmon species' populations in the upper Sacramento River basin and of waters on which they depend. The Selection Panel

recognizes the value of these data for status and trends analyses, management activities such as setting take limits, and for ongoing modeling efforts, and encourages funding of these activities through a directed actions process.

**Do Not Fund.** These proposals have serious technical deficiencies or are of lower priority to the ERP at this time. This category also includes proposals that were rated both inadequate by the Technical Panel and medium or lower by the applicable Regional Panel. The Selection Panel did not review these proposals because of they were not highly rated.

**A Note on "Amount".** For proposals recommended for funding, the amount shown is an upper limit recommended by the Selection Panel. For proposals recommended for reconsideration if revised, the amount provides general guidance on a target that the Panel believes should be appropriate for the revised proposal's budget. In a few cases, the Panel is providing only general guidance on the topics or tasks that should be included in a revised proposal, without suggesting a specific amount.

## Recommendations

For all of the proposals recommended for funding or for reconsideration if revised, the Selection Panel recommends that ERP implementing agencies' staff seek greater budget detail, revised budgets, and use other mechanisms to reduce costs as proposed by the applicants. Overhead and administrative rates, and fees paid for services and consultants, particularly private contractors, should receive particular attention.

### California Department of Fish and Game

*Juvenile Anadromous Salmonid Emigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

Amount sought: \$90,072

Duration: 36 months

This project will continue an existing California Department of Fish and Game (CDFG) juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton City. The project has, and continues to provide short-term monitoring specifically related to restoration actions (including Delta operations), and long-term monitoring to detect annular and cyclic population changes.

Recommendation: Directed Action (Baseline Fish and Water Monitoring)

**California Department of Fish and Game**

*Merced River Restoration Project Monitoring, Crocker-Huffman Dam to Gallo Ranch*

Amount sought: \$2,051,106

Duration: 36 months

This project is located in the Merced County and includes 17.0 miles of the Merced River from Crocker Huffman Dam (RM 52.0) to Gallo Apple Ranch (RM 35.0). Tasks involved with this proposal include monitoring geomorphic and revegetation development on the Robinson Reach of the Merced River Salmon Habitat Enhancement Project. Fisheries monitoring will also evaluate salmonid production, survival and rearing habitat on the entire study reach but focusing on past restoration actions.

Recommendation: Do Not Fund

**California Department of Water Resources**

*The COYOTE Project: a Unified Approach to Monitoring Floodplain and Freshwater Tidal Marsh Restoration in the Cosumnes Preserve and Yolo Bypass*

Amount sought: \$5,107,577

Duration: 36 months

This project will monitor connectivity and key ecological response variables at various spatial and temporal scales within the Yolo Bypass and the Cosumnes Preserve. The program will take advantage of comparisons between like ecosystems in the Yolo Bypass and Cosumnes River to assess project performance and the impacts of seasonal and interannual hydrologic variability. This project will be an integrated, multi-institutional, long term monitoring program for these two regions that: 1) assesses the response of ecosystems to management activities and hydrologic change, 2) develops indicators and performance measures to evaluate progress toward restoration objectives, 3) supports adaptive management of on-going restoration programs, and 4) develops new tools and methods to help guide floodplain and marsh restoration efforts throughout the CALFED region of interest.

Recommendation: Reconsider if Revised

Amount: \$1,500,000

**Conditions:** The proposed project is a large-scale, multi-institutional monitoring program for the Cosumnes-Yolo terrestrial-aquatic ecotone region. The project continues and expands upon ongoing monitoring of the Yolo Bypass and the Cosumnes River Preserve and adds comparable monitoring for Liberty Island. The project is multidisciplinary and relatively comprehensive. The academic, agency and NGO partners proposing to collaborate in the project are highly qualified. However, the technical review panel rated the proposal as inadequate and had a number of serious

concerns. The project is also extremely expensive. On these bases, the Selection Panel recommends that the proposal be revised to address the issues identified by the Technical Review panel in their reviews, the issues identified by the Selection Panel (below), and to meet a level of funding not to exceed \$1,5000,000 (note that this amount is provided as general guidance). It will then be reconsidered for funding.

1. The proposal is clearly a request to continue ongoing and past work in both the Yolo Bypass and the Cosumnes River Preserve, work that has already produced valuable results and indications that floodplain restoration and/or manipulation can benefit ecosystems and priority species. The argument for the proposed COYOTE collaboration is to organize the effort and allow cross comparisons between the two systems. Rather than launch continued monitoring, it seems logical that a first step in the new project would be to evaluate existing data, design performance measures for the proposed new project and then request funds for the monitoring and evaluation to continue. The revised proposal should therefore include some discussion and application of those results to the monitoring design proposed, draft performance measures (including responses of priority species, which can then be tested with the proposed monitoring and evaluation), and tools for adaptive management (including managed manipulation of the Yolo Bypass).
2. Use of a BACI design, even as modified as suggested in the proposal, is not an appropriate monitoring design. The monitoring design needs to be revised to more appropriately and clearly address the effects of restoration actions and, in the case of the Yolo Bypass where no restoration actions have been implemented to address potential managed manipulations of the system. The applicants need to make a clearer argument for connecting and relating monitoring of the two different floodplain systems (Yolo v Cosumnes).
3. Clarify and expand plans for integration of the various disciplines (tasks) of the proposed monitoring and evaluation (a consistent concern of the Technical reviewers, and apparent in the lack of integration evidenced in this proposal).
4. It is not realistic to request support from this PSP to initiate and implement a long-term monitoring program akin to LTER? If that is the objective, then the applicants need to develop (and include) a long-term funding plan to support this effort after completion of this 3-year project.
5. Clarify and provide additional information on the DWR financial support (i.e., matching funding) for ongoing and proposed monitoring in the Yolo Bypass.

**California Department of Water Resources**  
*Real-Time Flow Monitoring*

Amount sought: \$330,000  
Duration: 36 months

This project funds the continued operation and maintenance of flow monitoring stations that are part of an effort to assess, acquire, and manage minimum base instream flows in four eastside Sacramento River tributaries, (Big Chico, Butte, Deer and Mill creeks). Additional efforts to determine appropriate instream flows are currently in progress and will require a long-term record of the daily hydrograph for the various reaches of each tributary. Installation and operation of flow monitoring stations specifically targeted for the management of anadromous fish migration will provide the necessary long-term time series data for determination of minimum base flows. Installation and operation of flow monitoring stations specifically targeted for the management of anadromous fish migration will ensure the presence of, and facilitate the management of, dedicated instream flows acquired for anadromous fish.

Recommendation: Directed Action (**Baseline Fish and Water Monitoring**)

**California State Coastal Conservancy**  
*Near-field and Far-field Effects of Tidal Wetland Restoration in the Lower Napa River*

Amount sought: \$2,731,376  
Duration: 36 months

This project will monitor the effects of a large (3,900 ha) NSMR Project, and determine its effects on a relatively small (28 km long) Napa River Estuary. This ecosystem provides a unique opportunity to assess the effect of restoration actions on an undammed river, including the ability to contribute to recovery of at-risk fish species and other populations. This project will use a BACI (before-after, control-impact) sampling framework to determine changes in restored ponds in the Restoration Project, as well as to examine near-field and far-field effects in wetlands in the Napa River Estuary. This project will also measure changes in physical processes and biological responses.

Recommendation: Do Not Fund

**California State Coastal Conservancy**  
*Monitoring for Invasive Spartina Control in the San Francisco Estuary*

Amount sought: \$1,651,396  
Duration: 36 months

The proposed project includes annual regional surveys for non-native cordgrasses (Spartina) in the San Francisco Estuary and outer coast marshes. It also will monitor marsh areas treated to control Spartina to determine if treatment was effective. A major research component of the proposal is the development of genetic markers to identify particularly invasive Spartina hybrid genotypes.

Recommendation: Fund

Conditions: The Selection Panel agrees with the Technical Panel that the genetic marking work is not essential. Eliminate the QTL development task and continue to use the RAPD method for a cost savings of \$139,000 per year for 3 years - total \$417,000. A detailed explanation of the proposed administrative overhead rates and an evaluation of the proposed administrative fees for the primary and subcontractor agreements is required. The panel recommends that State reserves the right to negotiate a reasonable administrative overhead rate and additional fee rates other than stated in the grant proposal. The proposed grantee shall provide a description of qualifications and a short justification for contracting services for pre-selected subcontractors. The proposed grantee shall submit a detailed budget identifying labor rates and indirect costs of the proposed subcontractors.

**California State University, Chico**

*Butte Creek Spring-run Chinook Salmon Life History Investigation*

Amount sought: \$513,281

Duration: 36 months

This project, a partnership between California State University, Chico Research Foundation and the California Department of Fish and Game, will continue the Butte Creek spring-run Chinook salmon (SRCS) life history investigation for an additional three years. This project is located on Butte Creek, in Butte County, California near Chico. The objective is to continue development of an SRCS adult escapement estimate that will serve as a reliable and more precise "recovery-metric" providing a measure of overall restoration effectiveness and as a measure of recovery for the listed SRCS.

Recommendation: Reconsider if Revised

Conditions: This proposal meets the applicable guidelines for evaluating effectiveness of restoration actions and addresses the essence of the PSP in terms of monitoring priority fish species. There is a long history of monitoring this site and it is a high priority stream and species. Previous efforts have been providing monitoring data crucial to making management decisions in other parts of the watershed.

Although the proposed studies will provide valuable information for understanding spring run Chinook salmon (SRCS) and continue monitoring work established over 9

years, this project could provide considerably more information relevant to the efficacy of restoration actions if some improvements were made to the project as it is currently proposed. The current proposal suffers from a number of key details not being provided to the reviewers so they can properly evaluate the proposed work.

The selection panel recommends that this proposal be revised for reconsideration and address the proposal in light of all the technical review panel's comments.

- 1) Address the concerns from technical review regarding carcass washout and mortality of partially spawned adults and revise those methods if appropriate.
- 2) Describe the census methods better in a revised proposal so they can be peer reviewed
- 3) State the purpose of the tissue archiving and if it's for genetic analysis provide the long term plan for the tissue analysis and justification for the number of samples.
- 4) Provide details of the juvenile trapping efficiency so they can be peer review.
- 5) The number of coded wire tagged fish needs to be justified in terms of the goals of the monitoring and their ability to use the tagged fish to estimate significant population parameter of SRCS.
- 6) A plan needs to be devised and clearly articulated for using the monitoring data to address the efficacy of restoration activities.
- 7) The budget should be properly justified, and other issues raised in administrative reviews should be addressed.

**\*NOTE: The following three applicants (California State University, Chico, River Partners, and The Nature Conservancy) should work together and resubmit one revised and coordinated proposal that addresses the conditions described below.**

Recommendation: Reconsider if Revised

Conditions: These three proposals address monitoring of the effects of a variety of restoration actions in a high priority area where there has been a significant ERP and CVPIA investment. Before a coordinated proposal is reconsidered, it needs to be better integrated with other monitoring proposals for this Sacramento River area.

A revised proposal, for a combined amount of approximately \$2,000,000, should be developed cooperatively by the Nature Conservancy, River Partners, and CSU Chico, combining key tasks and personnel from each proposal, to address the goal of assessing riparian restoration, channel and river dynamics, and habitat development for species of concern through: (1) aerial photography, mapping, digitizing, and classifying



land cover and ownership, channels, and floodplains, (2) quantifying channel migration, including meander history erosion, and floodplain deposition including LIDAR and IKONOS subtasks (as appropriate and feasible within the funding limits), (3) monitoring of vegetation (including structure, composition, and cottonwood recruitment), birds, valley elderberry longhorn beetle and fish use of floodplain, and (4) producing reports about monitoring results (using the Scorecard approach proposed by TNC), and project management. Tasks addressing Argentine ants, large woody debris and social impact assessment should not be included in the revised proposal.

The Sacramento River Conservation Area Forum should be considered for the public outreach component of a revised proposal. For this proposal specifically, the Selection Panel concurs with the Sacramento Regional Panel rating of high priority and further recognizes the Sacramento River corridor covered by the proposal is an area of significant CALFED ERP investment. Although the Technical Panel concluded this proposal was above average, the evaluation also noted a lack of cohesion among tasks, and that individual external reviews were mixed. The Selection Panel reaction to the proposal was similarly mixed.

A comprehensive integrated monitoring strategy would be extremely valuable, but the individual proposals fall short of that goal. Instead, the tasks are presented in varying degrees of specificity and coordination. Direction is provided in the first paragraph above as to which elements should be retained and which should not, into a collaborative new proposal with the three teams. The Selection Panel would like to encourage that the CSU-DWR team be considered as the lead for the land cover/land use mapping and classification tasks in a new proposal, and further that the CNPS – Manual of California Vegetation be used in this element. However, the three teams should, in preparing the larger combined proposal, consult with the Riparian Habitat Joint Venture and Dr. Todd Keeler-Wolf of the Department of Fish and Game in designing the most appropriate vegetation classification system to use for the mapping task.

**\*California State University, Chico**

*Sacramento River Riparian Monitoring and Assessment Consolidated Project*

Amount sought: \$3,222,967

Duration: 36 months

This project will measure a range of physical and biological indicators for ERP and AFRP-funded projects within the Sacramento River Ecological Management Zone (Red Bluff to Colusa) and compare them to previous conditions and reference systems in order to test whether restoration actions have been successful in improving riparian forest conditions and forest interactions with aquatic processes. Because local and regional perceptions of restoration can affect the implementation and effectiveness of ecosystem improvements, we will also test the effects of these restoration efforts on human attitudes towards ecosystem restoration.

Recommendation: Reconsider if Revised

Conditions: See above.

**\*River Partners**

*VELB Colonization of Planted Riparian Restoration Projects along the Middle Sacramento River*

Amount sought: \$638,851

Duration: 36 months

Since 1993, riparian restoration has occurred on 3,600 acres of the USFWS Sacramento River National Wildlife Refuge. This project will survey eight selected refuge units spanning 73 river miles (RM 167 to 240) in the middle reach of the Sacramento River. These units represent a golden opportunity to study the recovery of VELB populations and how this recovery is influenced by both local site characteristics and proximity to existing natural beetle populations.

Recommendation: Reconsider if Revised

Conditions: See above.

**\*The Nature Conservancy**

*Measuring the Performance of Riparian Restoration Projects on the Sacramento River*

Amount sought: \$1,103,944

Duration: 36 months

This project will determine the success of horticultural restoration projects towards (ERP goal 4), and (ERP goal 1) on a wider geographic basis. This project will use remote censusing and field-based monitoring techniques to better characterize existing habitats and species abundance, distributions, fecundity, and survival (at both restoration sites and in remnant riparian areas) at the landscape scale. The iterative process of mapping and characterizing riparian vegetation, ground-truthing mapped areas, and refining mapping methodologies will enable us to evaluate the recovery of riparian habitats, songbirds and the VELB at the scale of the entire Project area. In addition, it will allow us to better determine the relative utility that various types of GIS-derived landscape-scale data (e.g., relative elevation, landform age, channel position, channel features, etc.) have in predicting occurrences and abundances of key species and communities. A SECONDARY OBJECTIVE is to integrate new monitoring information into an ecological scorecard framework that tabulates and synthesizes information to characterize the status and trends of focal biodiversity in the Sacramento River Project area.

Recommendation: Reconsider if Revised

Conditions: See above.

**California State University, Hayward**

*Multidisciplinary Monitoring of Environmental Processes in CALFED Restored Marshes in the Suisun Bay Ecological Zone. Phase Two: Importance of Marsh Tidal Pools, Algae, and Other Features along Marsh Channels.*

Amount sought: \$1,023,911

Duration: 36 months

This project would be Phase II of our mesohaline tidal marsh comparative monitoring, using non-destructive physical-chemical-biological monitoring with replication throughout each of our four recent CALFED collaborative marsh restorations and three (adjacent, ~100-yr-old, relatively natural) reference marshes. No other continued monitoring among these marsh sites is available. Central goals are to identify and improve factors that greatly enhance marsh (1) colonization, (2) productivity, (3) export, and (4) sustainability of dwindling and diverse native populations. This project will monitor and compare three reference marshes with >four replicate restored CALFED marshes both with and without pond connections, preferably including marsh maintenance as experimental field manipulations.

Recommendation: Do Not Fund

**California State University, Sacramento**

*Effects of Structural Enhancement on Salmonid Spawning,*

Amount sought: \$188,776

Duration: 24 months

Due to the uncertainty of exactly how or why structure may attract spawning salmon or what benefits may be associated with spawning adjacent to objects, such as woody debris and boulders, this project will study the influence of structure on intergravel permeability, down-welling, sediment composition and behavior of spawning salmonids on known Chinook salmon and steelhead spawning habitat in the Central Valley of California, including existing enhanced spawning sites that have received AFRP and CALFED funding for either construction or monitoring.

Recommendation: Do Not Fund

**Fishery Foundation of California**

*Cosumnes River Passage Improvement Monitoring Program*

Amount sought: \$251,647

Duration: 36 months

This project will continue to monitor a previously funded CALFED/Anadromous Fish Restoration Program (AFRP) project; The Cosumnes River Salmonid Barrier Improvement Project (Barriers Project). The project involved two CALFED/AFRP grants to improve passage at a low flow crossing near tidewater, four summer dams operated by the local water districts, and two fish ladders at Granlees Dam in Rancho Murieta. In total, improvements were made to six structures from River mile (RM) 6.75 through RM 34.5. The FFC proposes to continue monitoring the effectiveness of the individual barrier improvements and the response of the salmon population in terms of migration, escapement, and juvenile production to the restoration project as a whole. Total escapement will be estimated using the Peterson Index or modified Peterson Index.

Recommendation: Do Not Fund

**Fishery Foundation of California**

*Monitoring Study of Western Delta Aquatic Habitat Restoration Sites including Twitchell Island Restoration Site – K250/1997*

Amount sought: \$411,820

Duration: 36 months

This project will build upon ongoing monitoring at two western Delta restorations sites and initiate monitoring at the Twitchell Island Set-Back Levee Restoration Site on the lower San Joaquin River. The objective of the proposed monitoring is to compare fish habitat use within and among the three sites and adjacent river reference areas of the Western Delta.

Recommendation: Do Not Fund

**Friends of the Tuolumne, Incorporated**

*Tuolumne River Post Construction Habitat Evaluation*

Amount sought: \$353,790

Duration: 36 months

This project will monitor two separate restoration projects managed by Friends of the Tuolumne: BOBCAT FLAT RIVERMILE 43 AND GRAYSON RIVER RANCH. This project will monitor the instream habitat enhancements to evaluate the effectiveness of

the designs which aim to provide not only increased salmon spawning but also spawning and holding habitat for steelhead/trout.

Recommendation: Do Not Fund

**Lassen National Forest**

*Monitoring Effectiveness of Watershed Improvement Measures in Deer, Mill, Antelope and Battle Creeks*

Amount sought: \$259,152

Duration: 36 months

This project would assess the effectiveness of past and ongoing watershed improvement activities in four of the five watersheds on the Lassen National Forest that support anadromous fishes. Data would be collected in the Deer, Mill, Antelope and Battle Creek watersheds. The plan proposes to monitor the effectiveness of implemented practices at site, reach, sub-watershed and watershed scales.

Recommendation: Do Not Fund

**Marin Audubon Society**

*Petaluma Marsh Expansion Project -- Monitoring and Secondary Test Site for the Integrated Regional Wetland Monitoring Project*

Amount sought: \$235,000

Duration: 12 months

This project will monitor and evaluate the Petaluma Marsh Expansion Project (PMEP),(ERP Project # ERP-98-F13). This project will monitor this marsh as a secondary site within the Integrated Regional Wetland Monitoring Project (IRWM). This project will: 1) evaluate the underlying management question, how are ecosystem restoration efforts throughout the region affecting ecosystem processes at different scales; and (2) through application of adaptive monitoring strategy concepts, prepare for subsequent longer-term monitoring.

Recommendation: Fund

Conditions: Several concerns were raised by reviewers concerning the projects budget. Final approval of funding for this project should be conditioned on the applicants successfully providing detailed budget information addressing deficiencies identified in the budget review. According to the proposal, the California Department of Transportation provided \$185,000 to complete regulatory compliance monitoring, but the applicants feel they need another \$50,000 to fully implement the previously funded monitoring plan. The funding agency should confirm with CalTrans that the \$50,000

requested in this proposal to implement the CalTrans funded monitoring plan is a reasonable investment of State funds. If the Science Program approves funding for a related proposal titled "Integrated Regional Wetland Monitoring (IRWM) Project", then final approval of funding for the Petaluma Marsh expansion monitoring project should also be conditioned on reconciling the budget for this effort with the budget for the related request before the Science Program, to ensure that funding is complementary and not duplicative.

**National Audubon Society**

*Monitoring Ecosystem Response and Restoration Implementation in Western Sacramento Valley Watersheds*

Amount sought: \$1,200,000  
Duration: 36 months

This project will expand the monitoring efforts initiated during our Willow Slough Rangeland Stewardship Program (ERP-01-N31). We propose to monitor restoration actions carried out by Audubon-California (ERP-98-E13, ERP-01-N31), the Center for Land-Based Learning (ERP-02-P11), the Solano Land Trust's Jepson Prairie Preserve (ERP 97-N10, ERP-02-P21), and The Nature Conservancy's Lassen Foothills Project (ERP-02-P26). The monitoring program is based on a conceptual model that takes a dual approach to measure indices of ecosystem response across landscape units while at the same time assessing restoration implementation at the project level.

Recommendation: Do Not Fund

**Pacific States Marine Fisheries Commission**

*Upper Sacramento River Basin Chinook Salmon Escapement Monitoring Program*

Amount sought: \$1,353,357  
Duration: 36 months

The CALFED ERP, the CVPIA Program, and other programs, have provided millions of dollars for the restoration of Chinook salmon habitat in the Upper Sacramento River Basin (USRB), including the mainstem Sacramento River, Clear Creek, Battle Creek, Deer Creek and Mill Creek. The primary objective of this proposal is to continue to monitor the annual abundance, migration timing, and distribution of adult winter, spring, late-fall and fall-run Chinook salmon returning to spawn in the USRB for the next three years. Streams and species/runs to be monitored include: Sacramento River - winter, fall, and late fall-run Chinook; Clear Creek - fall-run Chinook; Battle Creek - fall-run Chinook; Mill Creek - fall and spring-run Chinook; Deer Creek - fall and spring-run Chinook; Beegum Creek - spring-run Chinook; Antelope Creek - spring-run Chinook.

Recommendation: Directed Action (Baseline Fish and Water Monitoring)

**Plumas Corporation**

*Upper Last Chance Restoration Project Monitoring*

Amount sought: \$473,804

Duration: 36 months

This project will continue on-going monitoring studies in the Last Chance Creek watershed, a tributary to the Feather River, in Plumas County. Last Chance Creek is the site of a nine-mile gully elimination project using the geomorphic pond and plug technique. The monitoring will focus on surface water discharge and timing, groundwater storage areas and volume, the evolution of channels newly subjected to bankfull flows, water temperature, evapotranspiration, and vegetative and beaver responses. The proposal also includes further refinement of the WEHY model currently being developed.

Recommendation: Do Not Fund

**River Partners**

*Sub-surface water quality monitoring on restored riparian sites along the middle Sacramento River*

Amount sought: \$409,350

Duration: 36 months

This project will monitor the sub-surface soil water under planted riparian restoration sites adjacent to the Sacramento River between Red Bluff and Chico. The restoration plantings were originally carried out with the goal of improving wildlife habitat and populations (ERP Goal 3). This project will monitor the sub-surface groundwater at three historic restoration sites for concentrations of nitrates, redox potential, dissolved oxygen content and isotopic ratios of water.

Recommendation: Do Not Fund

**River Partners**

*Vegetation and Wildlife Response to Native Grass Restoration on the Llano Seco Unit, Sacramento River National Wildlife Refuge*

Amount sought: \$372,100

Duration: 36 months

This project will examine the performance of a riparian savanna and grassland restoration. The monitoring effort will focus on key wildlife and vegetation responses. In

2000, River Partners initiated restoration on 206 acres of the Llano Seco Unit (Tract 4 and Tract 8) of the Sacramento River National Wildlife Refuge (Figures 1 and 2). Tract 4 (T4) and Tract 8 (T8) are located approximately 10 miles southwest of Chico, in Butte County, California. Funding was provided under the Central Valley Project Improvement Act (CVPIA).

Recommendation: Do Not Fund

### **River Partners**

*Assessment of Vegetative and Wildlife Responses to Innovative Restoration Design on the Beehive Bend Unit*

Amount sought: \$364,156

Duration: 36 months

This project will monitor the restoration responses of project ERP-97N03B (the Dept of Fish and Game's "Sacramento River Floodplain Acquisition - Riparian Forest Restoration"). This project will lead a collaborative effort to examine the responses of wildlife and vegetation to the restoration project and test some of the underlying assumptions that went into the project design on the Beehive Bend Unit.

Recommendation: Do Not Fund

### **San Francisco Estuary Institute**

*Implementation of A Wetlands Monitoring System Suitable for Assessing Ecosystem Response to Restoration Actions*

Amount sought: \$1,774,680

Duration: 36 months

The CWMV consists of a state-wide Core Team of agencies, NGOs and academics who advise multi-disciplinary Regional Teams to develop and implement a three-tiered approach to comprehensive wetlands monitoring. The three tiers of the CWMV are (1) habitat inventories; (2) rapid quantitative monitoring; and (3) intensive scientific study. The approach provides the most-cost-effective applications of science across the broadest array and largest number of restoration projects to report the distribution and abundance of wetlands, net changes in wetland acreage, and the condition of restoration projects relative to their performance standards, key ecological services, and ambient conditions.

Recommendation: Do Not Fund



**San Joaquin County Resource Conservation District**  
*Murphy Creek Restoration Monitoring Project*

Amount sought: \$583,054  
Duration: 36 months

In 2002, the SJRCD and EBMUD were awarded a CALFED grant for the Murphy Creek Restoration Project. Sparrow Dam, the downstream-most dam in Murphy Creek, was removed in August 2003, opening an additional 0.8 mile of potential spawning and rearing habitat to anadromous salmonids. Cattle exclusion fencing was installed in the area along the previous impoundment location and an effort to remove non-native riparian vegetation has been implemented. This project will determine the extent to which restoration actions undertaken by the MCRP have resulted in measurable increases and/or improvements in habitat for spawning and rearing of anadromous salmonids, production of anadromous salmonids, the relative proportion of native fish fauna, and the water quality in Murphy Creek. A secondary goal is to identify additional hydrologic, physical, chemical, and biological factors that may be limiting production of anadromous salmonids.

Recommendation: Do Not Fund

**Sonoma Ecology Center**

*Arundo donax Eradication and Coordination Program: Monitoring and Evaluation*

Amount sought: \$396,352  
Duration: 36 months

This project will implement the monitoring of Arundo eradication sites for restoration success. Funding is requested to support two additional years of monitoring so that monitoring continues without interruption. This work will be carried out at all 10 partner projects of the Arundo Eradication and Coordination Program (Arundo Program), which is managed by the Sonoma Ecology Center

Recommendation: Reconsider if Revised

Amount: \$111,000

Conditions: Team Arundo (Sonoma Ecology Center) should be funded to bring together an expert team to develop such a framework over a 1 year period, so that effective, comparable monitoring can take place. The proposal should be resubmitted focusing on Objective 1 and Tasks 11a, 12a, 12b, 13 a-c, 14 a-c, and validating the protocol and data management using one of the eradication sites. The Selection Panel believes this can be accomplished in one year with a budget not to exceed \$111,000.

The proposal should be resubmitted focusing on Objective 1 and Tasks 11a, 12a, 12b, 13 a-c, 14 a-c, and the validating the protocol and data management using one of the

eradication sites. The Selection Panel believes this can be accomplished in one year with a budget not to exceed \$111,000.

The proposed grantee shall provide a description of qualifications and a short justification for contracting services with pre-selected subcontractors (as cited on page 16 of the PSP). The proposed grantee shall also submit a detailed budget identifying the labor rates and indirect costs of the proposed subcontractors.

### **Sonoma Ecology Center**

*Does It Work? Measuring the Success of Salmonid Habitat Restoration at Multiple Scales*

Amount sought: \$810,324

Duration: 36 months

This project will quantify the impact of hundreds of thousands of CALFED dollars for restoration in the Sonoma Creek watershed in terms of actual steelhead (*Oncorhynchus mykiss*) population recovery. CALFED funding has equipped this project to develop an experimental design capable of measuring local benefits to habitat quality, reach-scale benefits in terms of increased fish productivity, and watershed-scale increases in total steelhead populations. Integrating reach- and watershed-scale approaches will allow this project to quantify the percentage of the fish population derived from treated reaches versus non-treated reaches.

Recommendation: Do Not Fund

### **Stockton East Water District**

*Calaveras River: Bellota Fish Ladder Passage Evaluation*

Amount sought: \$144,051

Duration: 36 months

In 2003, USFWS funded, through the Central Valley Project Improvement Act's (CVPIA) Anadromous Fish Restoration Program (AFRP), the construction and installation of a denil fish ladder at the lower end of the Bellota Weir (RM 24). Since its installation, there has been no comprehensive evaluation of the effectiveness of the ladders at providing fish passage. This monitoring project will evaluate the effectiveness of the ladders under low flow conditions by enumerating fish migrating through the ladders with an infra-red scanner (Vaki RiverWatcher). An additional objective is to evaluate flow conditions preceding recorded fish passage events by documenting flow data at two gaging stations.

Recommendation: Do Not Fund

### **The Nature Conservancy**

*Cosumnes River Preserve restoration monitoring data integration for adaptive management*

Amount sought: \$885,420

Duration: 36 months

This project will be implemented through a collaborative partnership with UCD (Information Center for the Environment) and PRBO Conservation Science. The primary objective is to monitor past restoration actions on the lower Cosumnes River floodplain by refining and measuring indicators for selected key ecological attributes and targets. This project will monitor: - Habitat distribution and amount by mapping and characterizing terrestrial land cover using aerial photos and remote imagery (UCD); - Habitat structure by establishing long-term permanent plots to monitor vegetation structure throughout riparian and floodplain habitat (TNC); and - Habitat function by monitoring riparian bird populations as indicators of ecosystem function (PRBO).

Recommendation: Do Not Fund

### **Tri-Dam Project**

*Stanislaus River Chinook Salmon and Steelhead Escapement Evaluation*

Amount sought: \$551,914

Duration: 36 months

This project will measure restoration success in the Central Valley with regard to Chinook salmon in the collection of escapement estimates, primarily obtained through carcass surveys. The Stanislaus River Weir is the only method capable of enumerating upstream migrating steelhead, which don't die after spawning and are not counted in traditional carcass surveys. Due to challenges encountered during the first two years of operation, steelhead enumeration was not possible and Chinook salmon enumeration was incomplete. Modifications to the monitoring system are anticipated to provide complete estimates of both steelhead and salmon abundance and run timing. Additional weir monitoring will also provide data to evaluate the influence of environmental conditions on fall-run Chinook run timing. Of particular interest is the potential for low dissolved oxygen concentrations in the Deep Water Ship Channel (DWSC) of the San Joaquin River to delay Chinook migration.

Recommendation: Do Not Fund

### **Tri-Dam Project**

#### *Assessment of Project Specific and Cumulative Effects of Restoration on Stanislaus River Juvenile Chinook Production*

Amount sought: \$478,509

Duration: 36 months

This project will use outmigration data collected with rotary screw traps in the lower Stanislaus River to continue monitoring the cumulative effects of in-channel restoration and other actions taken to restore and protect fall-run Chinook salmon (*Oncorhynchus tshawytscha*). Another goal of this project is to identify and quantify improvements in Stanislaus River juvenile production per spawner as a result of the Lovers' Leap Restoration Project. The Lovers' Leap Restoration Project, a gravel augmentation effort designed to increase the abundance of Chinook salmon and Central Valley steelhead, was funded by the United States Fish and Wildlife Service (USFWS), through the Central Valley Project Improvement Act's (CVPIA) Anadromous Fish Restoration Program (AFRP), and will be completed during 2005.

Recommendation: Do Not Fund

### **Turlock Irrigation District**

#### *Tuolumne River Restoration Monitoring*

Amount sought: \$2,430,400

Duration: 36 months

This project proposes monitoring that includes extension and, in some cases, augmentation, of project-specific effectiveness monitoring for four restoration projects on the Tuolumne River. We also propose to extend long-term, river-wide, biological trend monitoring needed to interpret project-specific monitoring results within tributary- and population-level contexts. Monitoring components include channel morphology, sediment transport, riparian vegetation, salmonid distribution and abundance, and salmonid habitat. Projects for which monitoring is proposed are: (1) Gravel Mining Reach Restoration (7/11 reach and M.J. Ruddy reach), (2) Special Run Pool 9 Restoration, (3) Fine Sediment Management, and (4) Coarse Sediment Management (Phases I through III, including coarse sediment augmentation at the Friends of the Tuolumne Bobcat Flat site).

Recommendation: Fund

Conditions: Several concerns were identified in the budget review that must be met prior to a final grant award. The proposed grantee shall provide a description of qualifications and a short justification for subcontracting services for pre-selected subcontractors. The proposed grantee shall also submit a detailed budget identifying the labor rates and indirect costs of the proposed subcontractors. A detailed explanation of the proposed

Administrative Overhead/Indirect costs rates and an evaluation of the proposed additional administrative fees for the primary and subcontractor agreements shall also be provided. The Selection Panel recommends that the State reserve the right to negotiate a reasonable administrative overhead rate and additional administrative fee rates other than stated in the grant proposal. In addition, the digital terrain model created for the project area must be available to the public.

**US Fish and Wildlife Service**

*Monitoring and Evaluation of Riparian Habitat and Floodplain Restoration at San Joaquin River National Wildlife Refuge*

Amount sought: \$1,464,782  
Duration: 36 months

This project will initiate a multidisciplinary monitoring and evaluation program on San Joaquin River floodplain lands protected and restored through previous CALFED Ecosystem Restoration Program funding on and adjacent to San Joaquin River National Wildlife Refuge. Part of the components of this monitoring will be new to the site while others will be a continuation of monitoring previously initiated as part of the restoration effort.

Recommendation: Do Not Fund

**US Fish and Wildlife Service**

*Clear Creek Anadromous Salmonid Monitoring Program*

Amount sought: \$3,373,313  
Duration: 36 months

This project is a comprehensive salmonid monitoring program that will provide feedback for the adaptive management and evaluation of restoration actions of the Clear Creek Restoration Program and B2 Water Program, funded by the Central Valley Project Improvement Act (CVPIA), and of the Ecosystem Restoration Program (ERP), Watershed Program, and potentially the Environmental Water Program, funded by CALFED. Five major restoration actions are monitored: increased instream flows, Saeltzer Dam removal, stream channel restoration, gravel augmentation, and erosion control. The three year monitoring program is based on a core of existing monitoring efforts currently funded by CALFED and CVPIA. The program complements a concurrent CALFED monitoring PSP proposal from the Western Shasta Resource Conservation District to provide geomorphological, riparian and avian monitoring of the same restoration actions.

Recommendation: Reconsider if Revised  
Amount: \$3,373,313

Conditions: This proposal is recommended for reconsideration, if revised. The Technical Panel concluded this proposal was “adequate” and that it was a well integrated study of several restoration efforts on Clear Creek, and the regional rating is “high.” The project is likely to produce information on the achievements of the ERP, have value for resource managers and decision makers in assessing progress, and for evaluating and modeling trends in population growth and productivity of Clear Creek. However, the Selection Panel has several serious concerns that would need to be addressed in a revised and resubmitted proposal, including the following:

- Identification and justification of control or reference sites
- Tasks described in enough detail to allow clearer technical evaluation.
- Clear description of existing knowledge on baseline conditions.
- Justification of the groupings of tasks within tiers and the prioritization of tiers.
- Clear budgeting for the separate tiers
- Provision of budget information in detail and in units that allow identification and evaluation of levels of effort.
- Clarification of whether this project includes fall run Chinook surveys.
- Addressing other identified reviewer concerns, including those identified in the budget reviews.
- Consideration of the approaches used in the Tuolumne Irrigation District's proposal (#97).

### **US Fish and Wildlife Service**

*Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement*

Amount sought: \$2,282,630

Duration: 36 months

Rotary-screw traps at Red Bluff Diversion Dam (RBDD) have provided estimates of abundance and outmigration timing of downstream migrating salmonids since 1994. The primary objective of this project is to obtain juvenile winter Chinook production indices and to correlate these indices with estimated escapement from adult counts at RBDD and the winter-run carcass survey.

Recommendation: Directed Action (Baseline Fish and Water Monitoring)

### **US Geological Survey**

*Evaluation of the conservation value of lands purchased with CALFED funds for wintering Sandhill Cranes*

Amount sought: \$490,909

Duration: 36 months

This project fills the need for a monitoring and applied research study to evaluate how CALFED's investments in land acquisitions, easements and habitat enhancements in the San Joaquin-Sacramento Delta region (hereafter called the Delta) can contribute to the conservation and recovery of threatened Greater Sandhill Cranes (*Grus canadensis tabida*). Detailed information on crane habitat requirements and movement patterns is needed to understand the critical links between properties purchased by CALFED and surrounding privately owned lands. A meaningful evaluation also needs to consider crane use at a larger spatial scale by asking questions about connectivity among sites and the role of CALFED properties in meeting the needs of all cranes wintering in the Delta Region.

Recommendation: Fund

Conditions: A detailed explanation of the proposed Administrative Overhead/Indirect costs rates and an evaluation of the proposed additional administrative fees for the primary and subcontractor agreement is required. The State reserves the right to negotiate a reasonable administrative overhead rate and additional administrative fee rates other than stated in the grant proposal. In addition the proposed grantee shall provide a short justification for pre-selected subcontractors/consultants (as cited on page 16 of the PSP). The proposed grantee must also: (1) Clarify how this project will evaluate both public and private lands used by the birds in the work products. (2) Initiate closer coordination with landowners and management agencies. This should include a written plan that outlines how such coordination will be achieved on an on-going basis, describes the information and management needs of stakeholder agencies or organizations (Stone Lake Wildlife Refuge and Staten Island) and describes explicit steps for sharing information with the site managers to help address those needs. (3) Provide an updated monitoring plan that builds off the methods and results of DU's current effort and consider locations in the eastern Delta. (4) Coordinate project start-up to avoid duplication with DU's final year of monitoring.

**US Geological Survey**

*Comparison of hyporheic water quality and methylmercury exposure in salmonid redds within restored and unrestored gravels in the lower American River*

Amount sought: \$996,307

Duration: 36 months

This project will examine hyporheic water quality and the potential for methylmercury exposure in salmonid redds on the Lower American River. Three existing CVPIA gravel restoration sites will be evaluated for indicator conditions that could potentially lead to methylmercury production, and water samples will be collected and analyzed for a variety of compounds that are related to methylmercury production. These include redox, sulfate or iron, low dissolved oxygen conditions, reactive mercury, organic carbon, pH and temperature.

Recommendation: Do Not Fund

**University of California, Davis**

*Monitoring Sacramento perch populations in the Central Valley*

Amount sought: \$715,362

Duration: 36 months

This project is a logical follow-up to a present project (ERP 02-P34) to study the basic biology of Sacramento Perch (SP), which was listed as Milestone 117 by the CBDA (2004). This project will monitor four established experimental SP populations and of three others to be established in 2005. This project will establish and monitor at least three other sites in 2006 as additional fish become available. Ultimately, this project will monitor a minimum of ten pilot reintroduction sites in the Delta and Suisun Marsh to gather data that can be used to optimize management strategies for current and future restoration sites.

Recommendation: Do Not Fund

**University of California, Davis**

*Hypothesis-driven Monitoring of the CALFED/CVPIA Sponsored Gravel Augmentation on the Lower Mokelumne River*

Amount sought: \$705,052

Duration: 36 months

In this next-phase monitoring and hypothesis-testing project, the project goal is to test 3 sets of hypotheses nested into a multi-scalar framework that explicitly recognizes the diverse needs for hydrogeomorphic and biological monitoring at reach, geomorphic-unit, and hydraulic-unit scales. At the reach scale the key performance questions evaluate the extent to which coarse sediment addition has re-started self-sustainable sediment transport continuity and whether the fish community shows a response to rehabilitation over a decade (1997-2008). At the geomorphic-unit scale a sediment budget framework is used to evaluate performance and persistence of complex pool-riffle units designed using SHIRA. At the hydraulic-unit scale the key performance questions evaluate the large uncertainty surrounding the hydrogeomorphic and biological functionality as well as rehabilitation value of artificially placed boulders, woody debris, and other habitat heterogeneity features.

Recommendation: Do Not Fund



**University of California, Davis**

*Monitoring Responses of the Delta Smelt Population to Multiple Restoration Actions in the San Francisco Estuary*

Amount sought: \$2,658,648

Duration: 36 months

This project requests three years of support to implement a state-of-the-art monitoring program to link key vital parameters for individual delta smelt with survival to adulthood at the population level. Our plan is to measure five vital parameters for fish collected by the IEP, including growth and body condition, exposure to toxic chemicals, survival to the adult stage, spawning success, and feeding and food selectivity. We previously developed the methodology for measuring four of these parameters for delta smelt and the fifth is a standard technique. Our approach is novel because it combines information from histopathology of fish tissues, gut contents, and analyses of fish growth from otoliths to distinguish among mechanisms influencing the state of the individual fish. By combining this information on surviving fish with region-specific information on the vital rates and risk of loss to the water export facilities, we can begin to discern what combinations of environmental conditions result in high or low survival and population abundance.

Recommendation: Reconsider if Revised

Amount: \$1,482,480

Conditions: The applicants submitted a letter in response to the Selection Panel's initial recommendation in which they acknowledge many of the recommendations made by the Panel and other reviewers. The Panel has considered the applicant's comments and appreciates their thoughtful response.

The Panel feels the real issue for smelt monitoring is to sort out the population bottlenecks in the smelt life cycle. This requires a comprehensive assessment of the mortality patterns within the entire system. The effort described in this proposal, together with other studies under consideration by the CBDA's Science Program and the Interagency Ecological Program (IEP), could provide key information on age and growth of different segments of the smelt population that could allow a better understanding of when and where their current life history bottlenecks take place and whether their patterns of growth are consistent with prevailing theories of population declines. The recommendations for revisions are designed to position this research team to provide key information on age and growth and spawning that can be interfaced with other management efforts to begin to assess and understand those patterns and to ensure coordination of this work, including an appropriate sequencing of studies, with other investigations.

The Panel recommendation that the proposal be reconsidered if revised is unchanged, but the review has been revised to emphasize key points that should be addressed by

the PI's. The recommendation as well as technical panel comments should be carefully considered in the revised submission:

1) This project proposes to consider a somewhat narrow set of potential mechanisms that could be impacting current recruitment levels of Delta smelt (food, contaminants) and disregards several other potentially important factors. It is also unclear how the project will focus the subsampling of available smelt to understand specific bottlenecks to Delta smelt recruitment. The Panel recognizes the impossible nature of trying to address all potential causes for smelt mortality and suggests that rather than broaden the scope, the project focus initially on providing age and growth information and spawning habitat data. Both types of data are needed by managers and can be funneled into the larger effort to understand smelt dynamics. A plan should be devised and clearly articulated in the proposal that includes a sample analysis plan that can best provide a basis for understanding of Delta smelt population dynamics within the system. The panel recommends that the mortality patterns of delta smelt observed in the IEP sampling should be reviewed before analyzing age and growth of smelt samples from a given year. A strategy should be devised in consultation with managers to strategically analyze the age and growth of smelt specimens that can best address the variety of factors affecting smelt in any given year.

2) The panel believes this project should not ignore entrained fish as a source of samples. The water projects generate large numbers of fish, perhaps greater numbers and at different intervals than IEP monitoring. Sampling fish from the projects might provide some key insights into smelt behavior at times of entrainment. At a minimum this project could determine if there are any differences in growth or other characteristics of entrained fishes and potential use the otolith chemistry to identify their source. This is possibly a key element in understanding population dynamics of smelt.

3) Better understanding about whether and how contaminants may be affecting smelt is important, the Panel concurs. Given funding limitations and other considerations, however, the Panel believes a decision about funding experiments on contaminant exposure needs to be considered as part of other decisions about investigations of the continued decline in smelt populations. A decision about whether to proceed with the experiments on contaminant exposure that are part of this project's task 3, therefore, should be reached after consultation with the science program and IEP (once their respective grants and work plans are finalized). This coordination should include considering whether funding for these investigations of contaminants' effects should be deferred until after other elements of the new smelt population investigations have made sufficient progress to warrant the histopathology research outlined in this proposal. If a decision to proceed with Task 3 is made, funds beyond the \$1.5 million listed above will be needed.

4) Given the importance of spawning habitat to any species, the assessment of smelt spawning habitat should be a priority for this project. However, the methods should be more carefully planned and articulated for the revised proposal.

5) Although the otolith chemistry appears to be well developed, the methods need to be clearly articulated in the proposal so they can be peer reviewed. The panel also noted that seasonal and interannual variability in Sr isotope ratios could make discriminating the source of some individual smelt tenuous, especially within waters of the Delta where the source waters from the various rivers systems are well mixed. The PI should consider those constraints in the sampling design.

6) The selection panel concurs with the technical panel that the costs for the microscope, grinding wheel and the CCD camera are excessive, and is puzzled by the need for new polishing tools and a new microscope in this project. The panel recommends that the task 2 budget be limited to \$35K for equipment (\$30K for a microscope and \$5K for a polishing wheel).

7) Concerns raised in the administrative review should be addressed.

**Western Shasta Resource Conservation District**  
**Lower Clear Creek Monitoring Program**

Amount sought: \$1,308,449  
Duration: 36 months

The Lower Clear Creek Floodway Restoration Project is a CALFED funded, three phase project. This project will include the following: (1) Avian Monitoring, which will use five metrics to monitor essential avian populations, including the collection of data on an established set of riparian focal species; (2) Geomorphic Monitoring, which will include the measurement of geomorphic changes at both the project scale and on the entire watershed; (3) Riparian Habitat Monitoring, which will measure eight elements of vegetation survival and productivity, wetland creation, and the success of exotic species control efforts.

**Recommendation: Fund**

Conditions: The grant is subject to a detailed evaluation and approval of the whole budget to determine if labor rates and services are reasonable for services provided and are comparable to state or market rates. For subcontractor portion of the budget, the proposed grantee shall provide a description of qualifications and a short justification for subcontracting services for pre-selected subcontractors (as cited on page 16 of PSP). The proposed grantee shall also submit a detailed budget identifying the labor rates and indirect costs of the proposed subcontractors.

**Agenda Item: 11B**  
**Meeting Date: August 11, 2005**

## **RESOLUTION 05-08-04**

### **RECOMMENDING THAT THE DEPARTMENT OF FISH AND GAME PROCEED WITH AWARDING THE CALFED ECOSYSTEM RESTORATION PROGRAM MONITORING AND EVALUATION GRANTS**

**WHEREAS**, the Ecosystem Restoration Program presents a comprehensive vision for improving and increasing aquatic and terrestrial habitats and improving ecological functions in the Bay-Delta ecosystem; and

**WHEREAS**, those State and Federal agencies with CALFED Program restoration funds have coordinated their efforts to solicit for, and select, the best monitoring projects to support implementation of the Ecosystem Restoration Program, with assistance of the staff from the California Bay-Delta Authority; and

**WHEREAS**, the Department of Fish and Game has received an appropriation of Proposition 50 Bay-Delta Ecosystem Restoration Account funds in its Fiscal Year 2004/2005 Budget which has been reappropriated in 2005/2006; and

**WHEREAS**, the Department of Fish and Game may distribute funds through grants; and

**WHEREAS**, the ten proposals listed below constitute eligible projects for purposes of receiving Proposition 50 Bay-Delta Ecosystem Restoration Account funds; and

**WHEREAS**, the four proposals listed in Attachment 1 currently meet the objectives of the CALFED Program; and

**WHEREAS**, approval of these four grant proposals shall be conditioned upon each grantee complying with all applicable laws and regulations; and

**WHEREAS**, after requisite revisions, up to six proposals listed in Attachment 1 will meet the objectives of the CALFED program; and

**WHEREAS**, approval of these six grant proposals shall be conditioned upon each grantee revising proposals to address shortcomings, and complying with all applicable laws and regulations; and

**WHEREAS**, the four directed action proposals listed in Attachment 1 will meet the objectives of the CALFED program; and

**WHEREAS**, approval of these four grant proposals shall be conditioned upon each grantee complying with all applicable laws and regulations;

**NOW, THEREFORE, BE IT RESOLVED** that the California Bay-Delta Authority supports the recommendation of the Director of the Department of Fish and Game to immediately fund four CALFED Ecosystem Restoration Program Monitoring Grants in the amount of up to \$5,207,845, subsequently fund up to six CALFED Ecosystem Restoration Program Grants in the amount of no more than \$8,980,074, and fund up to four CALFED Ecosystem Restoration Program Directed Action Grants in the amount of no more than \$4,056,059.

#### **CERTIFICATION**

The undersigned Assistant to the California Bay-Delta Authority does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Authority held on August 11, 2005.

**Dated:** \_\_\_\_\_

\_\_\_\_\_  
**Assistant to the California Bay-Delta Authority**

## CALFED Ecosystem Restoration Program Monitoring and Evaluation Grants

### Summary of Funding Recommendations

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California State Coastal Conservancy	Monitoring for Invasive Spartina Control in the San Francisco Estuary	\$1,651,396	Fund Amount: \$1,234,396	Fund Amount: \$1,234,396
Marin Audubon Society	Petaluma Marsh Expansion Project -- Monitoring and Secondary Test Site for the Integrated Regional Wetland Monitoring Project	\$235,000	Fund Amount: \$235,000	Fund Amount: \$235,000
Turlock Irrigation District	Tuolumne River Restoration Monitoring	\$2,430,400	Fund Amount: \$2,430,400	Fund Amount: \$2,430,000
Western Shasta Resource Conservation District	Lower Clear Creek Monitoring Program	\$1,308,449	Fund Amount: \$1,308,449	Fund Amount: \$1,308,449
US Geological Survey	Evaluation of the conservation value of lands purchased with CALFED funds for wintering Sandhill Cranes	\$490,909	Fund Amount: \$490,909	Do Not Fund
<b>Total</b>		<b>\$6,116,154</b>		<b>\$5,207,845</b>

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California Dept. of Fish & Game	Juvenile Anadromous Salmonid Emmigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel	\$90,072	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$90,072
California Dept. of Water Resources	Real-Time Flow Monitoring	\$330,000	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$330,000
Pacific State Marine Fisheries Commission	Upper Sacramento River Basin Chinook Salmon Escapement Monitoring Program	\$1,353,357	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$1,353,357
US Fish & Wildlife Service	Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement	\$2,282,630	Fund as Directed Action (Baseline Fish and Water Monitoring)	Fund as Directed Action Amount: \$2,282,630
<b>Total</b>		<b>\$4,056,059</b>		<b>\$4,056,059</b>

Applicant	Project Title	\$ Requested	Selection Panel Recommendations	DFG Recommendations
California State University Chico	Butte Creek Spring-run Chinook Salmon Life History Investigation	\$513,281	Reconsider if Revised Amount: \$513,281	Reconsider if Revised Amount: \$513,281
California State University Chico	Sacramento River Riparian Monitoring and Assessment Consolidated Project	\$3,222,967	Reconsider if Revised	Reconsider as one combined project, Amount: \$2,000,000
River Partners	VELB Colonization of Planted Riparian Restoration Projects along the Middle Sacramento River	\$638,851	Reconsider if Revised	
The Nature Conservancy	Measuring the Performance of Riparian Restoration Projects on the Sacramento River	\$1,103,944	Reconsider if Revised	
Sonoma Ecology Center	Arundo donax Eradication and Coordination Program: Monitoring and Evaluation	\$396,352	Reconsider if Revised Amount: \$111,000	Reconsider if Revised Amount: \$111,000
University of California, Davis	Monitoring Responses of the Delta Smelt Population to Multiple Restoration Actions in the San Francisco Estuary	\$2,658,648	Reconsider if Revised Amount: \$1,482,480	Reconsider if Revised Amount: \$1,482,480
US Fish & Wildlife Service	Clear Creek Anadromous Salmonid Monitoring Program	\$3,373,313	Reconsider if Revised Amount: \$3,373,313	Reconsider if Revised Amount: \$3,373,313
California Dept. of Water Resources	The COYOTE Project: a Unified Approach to Monitoring Floodplain and Freshwater Tidal Marsh Restoration in the Cosumnes Preserve and Yolo Bypass	\$5,107,577	Reconsider if Revised Amount: \$1,500,000	Reconsider if Revised Amount: \$1,500,000
<b>Total</b>		<b>\$17,014,933</b>		<b>\$8,980,074</b>